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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/703,629	11/10/2003	Takashi Sakakura	1163-0484P	2164
2292 7590 09/07/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER KASRAIAN, ALLAHYAR	
			ART UNIT 2616	PAPER NUMBER
			NOTIFICATION DATE 09/07/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

## Office Action Summary

Application No.

10/703,629

Applicant(s)

SAKAKURA, TAKASHI

Examiner

Allahyar Kasraian

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 11/10/2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The information disclosure statement submitted on Dec. 10, 2003 has been considered by the Examiner and made of record in the application file.

### ***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-3 and 5-7** are rejected under 35 U.S.C. 102(e) as being anticipated by **Matsunaga (U.S. Patent Application Pub. # 2004/0066746 A1)**.

Consider **claim 1**, Matsunaga clearly shows and discloses a router apparatus comprising (see FIG. 2 or FIG. 4 for Packet Transfer Apparatus 10 or 11): an IP packet identification unit (see Flow Identifying Means 302) for identifying IP packets that are burstly transmitted to said router apparatus based on both a protocol for a transport layer, which is applied to received IP packets, and a transfer rate at a time of receiving IP packets, and for disabling a transfer of received IP packets that are determined to be burstly transmitted to said router apparatus (see lines 2-4 of par. 0059, "identifying means 302 searches the flow identification database 303 to identify an upper layer's flow corresponding to received data packets..." means 302 classifies the received packet based on transfer rate measurement and one of the classification is higher than maximum limiting rate which is considered as busrtly IP packets. See lines 1-3 of par. 0110 for the disabling limitation, "this processing method when the maximum limiting rate is exceeded are... received packet discarding (Drop)..."; and lines 1-3 of par. 0113 for indication of transport layer limitation, "if transport layer protocol is UDP, the processing method when maximum limiting rate is exceeded is set to (Drop)..."); and a transfer rate measurement unit for determining said transfer rate (see Fig. 2 for Packet Transfer measuring Means 304).

Consider **claim 2 as applied to claim 1 above**, Matsunaga clearly shows and discloses in a case of receiving IP packets to which TCP is applied as the protocol for the transport layer, said IP packet identification unit discards said IP packets so as to cause a terminal that is a sending source of said IP packets to adjust the transfer rate to a predetermined value or below when the transfer rate at the time of receiving said IP packets exceeds the predetermined value (see par. 0114 and 0115 for determining whether the transport layer is TCP when the maximum limiting rate is exceeded then the transmission of packet is stopped and sending acknowledgement packets to the source).

Consider **claim 3 as applied to claim 1 above**, Matsunaga clearly shows and discloses in a case of receiving IP packets to which UDP is applied as the protocol for the transport layer, said IP packet identification unit discards all IP packets associated with an identical session when the transfer rate at the time of receiving said IP packets exceeds a predetermined value (see lines 1-3 of par. 0110, "if transport layer protocol is UDP, the processing method when maximum limiting rate is exceeded is set to (Drop)...").

Consider **claim 5 as applied to claim 1 above**, Matsunaga clearly shows and discloses said transfer rate measurement unit calculates the transfer rate only for sessions in which a time required for reception of preceding IP packets does not exceed a predetermined time (see par. , "the queue selection method in these queue

selection means 307,308 and 309... by which expected transfer times are managed on the basis of... maximum limiting rate... and a packet is extracted from the queue of a flow having minimum expected transfer time.”)

Consider **claim 6 as applied to claim 2 above**, Matsunaga clearly shows and discloses said transfer rate measurement unit dynamically sets the predetermined value based on a number of sessions stored in said router apparatus (see lines 3-6 of par. 0025, “maximum limiting rates preset for flows {F1, F2,..., Fi} which belong to group 1 and Msum be sum total of these maximum limiting rates...”).

Consider **claim 7 as applied to claim 2 above**, Matsunaga clearly shows and discloses said transfer rate measurement unit dynamically sets the predetermined value according to an amount of transferred data stored in said router apparatus (see lines 6-10 of par. 0117, “on the basis of the transport layer protocol of the flow identification conditions, the processing method when the maximum limiting rate is exceeded, it is possible to reduce buffer necessary for shaping and also reduce the processing load required for shaping”).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Matsunaga (U.S. Patent Application Pub. # 2004/0066746 A1)** in view of **Lo et al (U.S. Patent Application Pub. # 2003/0095567 A1)**.

Consider **claim 3 as applied to claim 1 above**, Matsunaga disclosed the claimed invention except said IP packet identification unit transfers IP packets to which RTP is applied as the protocol for the transport layer on a priority basis, and disables a transfer of IP packets to which other protocols are applied.

In the same field of endeavor, Lo et al. clearly show and disclose said IP packet identification unit transfers IP packets to which RTP is applied as the protocol for the transport layer on a priority basis, and disables a transfer of IP packets to which other protocols are applied (see FIG. 3 and lines 10-20 of paragraph 0022, "IP packets are analyzed by the protocol processor 44 and if a packet is identified as an

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RTP packet, the packet is redirected, away from the conventional IP/UDP processing as performed on the CPU 46 by an Operating System routine, and processed by the RTP handler module 48. The RTP handler module 48 preferably comprises firmware or a microcode routine executed by the protocol processor 44. The RTP handler module 48 is thus separate from the operating system and preferably executes on a separate processor...").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the real time protocol (RTP) identifier and processor as taught by Lo et al. to the flow identification means 302 of packet transfer apparatus 10 as disclosed by Matsunaga for the purpose of detecting and the processing of RTP flows with superiority separated from other flows. The proper motivation is to separate and process and the accelerate processing of RTP protocol from other protocols.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.
  - a. Khalil (U.S. Patent # 5,343,465) disclose method and system for real-time burstiness analysis of network.
  - b. Loughran et al. (U.S. Patent # 6,570,848 B1) disclose system and method for congestion control in packet-based communication networks.



- c. Tanaka et al. (U.S. Patent # 6,504,824 B1) disclose Apparatus and method for managing rate band
  - d. Ylonen et al. (U.S. Patent Application Pub. 2003/0110379 A1) disclose Application gateway system, and method for maintaining security in a packet-switched information network
  - e. Meurisse et al. (U.S. Patent # 5,959,973) disclose method to control data flow rate queuing network node and packet switching network
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allahyar Kasraian whose telephone number is (571) 270-1772. The examiner can normally be reached on Monday through Friday 8:00 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the

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Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Allahyar Kasraian*  
AK/ak  
August 26, 2007



KENNETH VANDERPUYE  
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